

Claims

What is claimed is:

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A method of accessing an information system using a portable access device, the method comprising the steps of:

identifying a communication protocol associated with a network server;

attempting to establish a communication link with said network server using one of a plurality of communication media, in accordance with said communication protocol, wherein said one of a plurality of communication media is selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and Public Switched Telephone Network (PSTN); and

capturing data in a memory location in accordance with a failed attempt to establish said communication link.

2. The method of claim 1 wherein said step of identifying a communication protocol associated with said network server further comprises the following steps:

searching an internal database for a communication protocol associated with the network server; and

retrieving said communication protocol from the internal database.

3. The method of claim 1 wherein said step of identifying a communication protocol associated with said network server further comprises the following steps:

searching an internal database for a communication protocol associated with a first network server;

transmitting from a portable access device to a second network server, a request to access said first network server when said communication protocol cannot be found in said internal database; and

retrieving a communication protocol associated with said first network server from said second network server.

4. The method of claim 3 wherein said step of transmitting a request from a portable access device to a second network server is further comprised of the following steps:  
transmitting a signal from a portable access device to a local wireless LAN transceiver;  
transmitting a second signal from said portable access device to a remote wireless  
5 transceiver when a communication link cannot be established with said local wireless LAN transceiver; and

connecting said portable access device to a public switched telephone network (PSTN) when a communication link cannot be established with said remote wireless transceiver.

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A27 5. The method of claim 1 wherein said step of attempting to establish a communication link with said network server is further comprised of the following steps:  
configuring said portable access device to transmit using one of a plurality of communication media, in accordance with said communication protocol;  
5 verifying the availability of said communication medium; and  
initiating communication between said portable access device and said network server along said communication medium.

6. The method of claim 5 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:

transmitting a signal from said portable access device to a local wireless LAN transceiver;

5 transmitting a second signal from said to a remote wireless transceiver when a communication link cannot be established with said local wireless LAN transceiver; and  
connecting to a PSTN when a communication link cannot be established with said remote wireless transceiver.

7. A method of accessing an information system using a portable access device, the method comprising the steps of:

- receiving a request from a portable access device to access a network server;
- identifying a communication protocol associated with said network server;
- 5 transmitting said communication protocol to said portable access device; and
- establishing a communication link between said portable access device and said network server using one of a plurality of communication media, in accordance with said communication protocol, wherein said one of a plurality of communication media is selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and
- 10 Public Switched Telephone Network (PSTN).

8. The method of claim 7 further comprising the step of configuring said portable access device to capture data in memory in accordance with a failed attempt to establish said communication link.

9. The method of claim 7 wherein said step of identifying a communication protocol associated with said network device further comprises the following steps:

- accessing a central database;
- searching said central database for a communication protocol associated with said
- 5 network server; and
- retrieving said communication protocol.

10. The method of claim 7 wherein said step of establishing communication between said portable access device and said network server is further comprised of the following steps:

- configuring said portable access device to transmit using one of a plurality of
- 5 communication media in accordance with said communication protocol;
- verifying the availability of said communication medium; and

initiating communication between said portable access device and said network server using one of said communication media.

11. The method of claim 10 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:

transmitting a signal to a local wireless LAN transceiver;

transmitting a second signal to a remote wireless transceiver when a communication  
5 link cannot be established with said local wireless LAN transceiver; and

connecting to a PSTN when a communication link cannot be established with said remote wireless transceiver.

12. A method of accessing an information system using a portable access device, the method comprising the steps of:

transmitting from a portable access device to a first network server, a request to access a second network server;

5 receiving said request at said first network server;

identifying a communication protocol associated with said second network server;

transmitting said communication protocol from said first network server to said portable access device; and

10 establishing a communication link between said portable access device and said second network server using one of a plurality of communication media, in accordance with said communication protocol, wherein said one of a plurality of communication media is selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and Public Switched Telephone Network (PSTN).

13. The method of claim 12 further comprising the step of configuring said portable access device to capture data in memory in accordance with a failed attempt to establish said communication link.

14. The method of claim 12 wherein said step of transmitting from a portable access device to a first network server is further comprised of the following steps:

transmitting a signal from a portable access device to a local wireless LAN transceiver;

transmitting a second signal from said portable access device to a remote wireless transceiver when a communication link cannot be established with said local wireless LAN transceiver; and

5 connecting said portable access device to a public switched telephone network (PSTN) when a communication link cannot be established with said remote wireless transceiver.

15. The method of claim 12 wherein said step of identifying a communication protocol associated with said first network server further comprises the following steps:

accessing a central database; and

retrieving a communication protocol that corresponds to said first network server.

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16. The method of claim 12 wherein said step of establishing a communication link between said portable access device and said first network server is further comprised of the following steps:

configuring said portable access device to transmit using one of a plurality of

5 communication media in accordance with said communication protocol;

verifying the availability of a communication medium; and

initiating communication between said portable access device and said second network server along said communication medium.

17. The method of claim 16 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:

transmitting a signal to a local wireless LAN transceiver;

transmitting a second signal to a remote wireless transceiver when a communication  
5 link cannot be established with said local wireless LAN transceiver; and  
connecting to a PSTN when a communication link cannot be established with said  
remote wireless transceiver.

18. An access device for communicating with an information system comprising:  
a central processing unit;  
video display;  
input device;  
5 a portable radiotelephone transceiver for receiving/transmitting over a cellular  
telecommunications network;  
a cordless telephone transceiver for receiving/transmitting over a wireless local  
area network;  
a Public Switched Telephone Network (PSTN) interface for facilitating a wired  
10 connection to a PSTN; and  
an antenna for transmitting and receiving data over a wireless communication  
medium.

19. The access device of claim 18 further comprised of a pressure sensitive video  
display.

20. The access device of claim 18, further comprising a primary memory  
comprised of:

a software module for configuring the access device to capture data locally or to  
selectively communicate with cell sites of a cellular radiotelephone network, cordless stations  
5 of a local radio network or through a wired PSTN;

a software processing module for creating a patient profile, modifying a patient profile,  
and searching a secondary memory location for a desired patient profile; and

a software processing module for searching a secondary memory location for a desired communication profile and to transmit a request for said communication profile to a remote database when said communication profile is not stored on said access device.

21. The portable access device of claim 20 wherein said communications profiles are comprised of routing tables, subscriber addresses, and network associations.

22. The access device of claim 20 comprised of a secondary memory device adapted to store a plurality of patient profiles and a plurality of communication profiles.

23. The portable access device of claim 20 wherein said patient profile is a database record comprised of patient identification and historical treatment data.

24. The access device of claim 20 wherein said primary memory is further comprised of a software module for simultaneously interfacing with a plurality of network users via a wireless or wireline communication medium, and for configuring the network server to capture data locally or to selectively communicate with cell sites of a cellular radiotelephone network, cordless stations of a local radio network, or through a wired PSTN.

25. The access device of claim 18, further comprising a primary memory comprised of:

a software processing module for creating a patient profile, modifying a patient profile, and searching a secondary memory location for a desired patient profile;

a software module for simultaneously interfacing with a plurality of other network users via a wireless or wireline communication medium, and for configuring the network server to selectively communicate with cell sites of a cellular radiotelephone network, cordless stations of a local radio network, or through a wired PSTN; and

10 a software processing module for searching the secondary storage device for a desired communication profile and for transmitting said communication profile to a network server or access device.

26. The portable access device of claim 25 wherein said communications profiles are comprised of routing tables, subscriber addresses, and network associations.

27. The portable access device of claim 25 wherein said patient profile is a database record comprised of patient identification and historical treatment data.

28. The network server of claim 25 wherein said secondary storage device is additionally adapted to store user authentication data.

29. An information system comprised of:  
means for identifying a communication protocol associated with a network server;  
means for attempting to establish a communication link with said network server using one of a plurality of communication media, in accordance with said communication protocol  
5 wherein said one of a plurality of communication media is selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and Public Switched Telephone Network (PSTN); and  
means for capturing data in a memory in accordance with a failed attempt to establish said communication link.

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sub 23 70. A computer-readable medium containing instructions for accessing an information system comprising an access device and a plurality of network servers, the method comprising the steps of:

5 identifying a communication protocol associated with a network server;  
attempting to establish a communication link with said network server using one of a plurality of communication media, in accordance with said communication protocol, wherein



said one of a plurality of communication media is selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and Public Switched Telephone Network (PSTN); and

10 capturing data in a memory location in accordance with a failed attempt to establish said communication link.

31. The computer-readable medium of claim 30 wherein said step of identifying a communication protocol associated with said network server further comprises the following steps:

5 searching an internal database for a communication protocol associated with the network server; and  
retrieving said communication protocol from the internal database.

32. The computer-readable medium of claim 30 wherein said step of identifying a communication protocol associated with a first network server further comprises the following steps:

5 searching an internal database for a communication protocol associated with a first network server;

transmitting from a portable access device to a second network server, a request to access said first network server when said communication protocol cannot be found in said internal database; and

10 retrieving a communication protocol corresponding to said first network server from said second network server.

33. The computer-readable medium of claim 32 wherein said step of transmitting a request from a portable access device to a second network server is further comprised of the following steps:

- transmitting a signal from a portable access device to a local wireless LAN
- 5 transceiver;
- transmitting a second signal from said portable access device to a remote wireless transceiver when a communication link cannot be established with said local wireless LAN transceiver; and
- connecting said portable access device to a PSTN when a communication link
- 10 cannot be established with said remote wireless transceiver.

34. The computer-readable medium of claim 30 wherein said step of attempting to establish a communication link with said first network server is further comprised of the following steps:

- configuring said portable access device to transmit using one of a plurality of
- 5 communication media, in accordance with said communication protocol;
- verifying the availability of said communication medium; and
- initiating communication between said portable access device and said first network server along said communication medium.

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B4* 35. The computer-readable medium of claim 34 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:
- transmitting a signal from said portable access device to a local wireless LAN transceiver;
- 5 transmitting a second signal from said to a remote wireless transceiver when a communication link cannot be established with said local wireless LAN transceiver; and
- connecting to a PSTN when a communication link cannot be established with said remote wireless transceiver.

36. A computer-readable medium containing instructions for accessing an information system comprising an access device and a plurality of network servers, the method comprising the steps of:

- receiving a request from a portable access device to access a network server;
- 5 identifying a communication protocol associated with said network server;
- transmitting said communication protocol to said portable access device; and
- establishing a communication link between said portable access device and said network server using one of a plurality of communication media, in accordance with said communication protocol, wherein said one of a plurality of communication media is
- 10 selected from the group consisting of: local wireless LAN, remote wireless LAN, wireline LAN, and Public Switched Telephone Network (PSTN).

37. The computer-readable medium of claim 36 further comprising the step of configuring said portable access device to capture data in memory in accordance with a failed attempt to establish said communication link.

38. The computer-readable medium of claim 36 wherein said step of identifying a communication protocol associated with said network device further comprises the following steps:

- accessing a central database;
- 5 searching said central database for a communication protocol associated with said network server; and
- retrieving said communication protocol.

39. The computer-readable medium of claim 36 wherein said step of establishing communication between said portable access device and said network server is further comprised of the following steps:

- configuring said portable access device to transmit using one of a plurality of
- 5 communication media in accordance with said communication protocol;
- verifying the availability of said communication medium; and
- initiating communication between said portable access device and said network server using one of said communication media.

40. The computer-readable medium of claim 39 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:

- transmitting a signal to a local wireless LAN transceiver;
- transmitting a second signal to a remote wireless transceiver when a
- 5 communication link cannot be established with said local wireless LAN transceiver; and
- connecting to a PSTN when a communication link cannot be established with said remote wireless transceiver.

41. A computer-readable medium containing instructions for accessing an information system comprising an access device and a plurality of network servers, the method comprising the steps of:

- transmitting from a portable access device to a first network server, a request to
- 5 access a second network server;
- receiving said request at said first network server;
- identifying a communication protocol associated with said second network server;
- transmitting said communication protocol to said portable access device; and
- establishing a communication link between said portable access device and said
- 10 second network server using one of a plurality of communication media, in accordance with said communication protocol.

42. The computer-readable medium of claim 41 further comprising the step of configuring said portable access device to capture data in memory in accordance with a failed attempt to establish said communication link.

43. The computer-readable medium of claim 41 wherein said step of transmitting from a portable access device to a first network server is further comprised of the following steps:

- transmitting a signal from a portable access device to a local wireless LAN
- 5 transceiver;
- transmitting a second signal from said portable access device to a remote wireless transceiver when a communication link cannot be established with said local wireless LAN transceiver; and
- connecting said portable access device to a PSTN when a communication link
- 10 cannot be established with said remote wireless transceiver.

44. The computer-readable medium of claim 41 wherein said step of identifying a communication protocol associated with said first network server further comprises the following steps:

- accessing a central database; and
- 5 retrieving a communication protocol that corresponds to said first network server.

45. The computer-readable medium of claim 41 wherein said step of establishing a communication link between said portable access device and said first network server is further comprised of the following steps:

- configuring said portable access device to transmit using one of a plurality of
- 5 communication media in accordance with said communication protocol;
- verifying the availability of a communication medium; and
- initiating communication between said portable access device and said second network server along said communication medium.

46. The computer-readable medium of claim 45 wherein said step of verifying the availability of a communication medium is further comprised of the following steps:

- transmitting a signal to a local wireless LAN transceiver;
- transmitting a second signal to a remote wireless transceiver when a
- 5 communication link cannot be established with said local wireless LAN transceiver; and
- connecting to a PSTN when a communication link cannot be established with said remote wireless transceiver.